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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/567,400

01/17/2007

David Magda Eddy Corynen

18244-6101

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57449

7590

09/29/2008

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EXAMINER

ENSEY, BRIAN

ART UNIT

PAPER NUMBER

2615

MAIL DATE

DELIVERY MODE

09/29/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/567,400	<b>Applicant(s)</b> CORYNEN, DAVID MAGDA EDDY	
	<b>Examiner</b> Brian Ensey	<b>Art Unit</b> 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |



## **DETAILED ACTION**

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.

The disclosure is objected to because of the following informalities: Page 4, line 19 recites a specific reference of the membrane “as defined in claim 10.” Specific references to the claims are not permitted since the content of the claim may change during prosecution.

Appropriate correction is required.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: See Fig. 7, item 204c. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Drawings***

The drawings are objected to because Figure 4, items 104 and 104c are reversed. Item 104 is pointing to the radial fold but is the flat membrane body and 104c is pointing to the flat membrane body and is the radial fold. Figure 6, item “d” shows fold width but should show fold depth. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the

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Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Figure 8 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

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Claims 7 and 8 are objected to because of the following informalities: Claims 7 and 8 refer to the fold “area as defined in claim 1”. The merits of the claim should be included in the claim and not referred to in the alternative. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 provides for the use of a membrane, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 10 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al. U.S. Patent No. 6,236,733 in view of Maruno Japanese Patent No. 60171897 A.

Regarding claim 1, Kato discloses a loudspeaker provided with a frame (5), a membrane (8) and a drive unit (1, 2, 3, 6, 7), said membrane having an outer circumferential edge (at 9) suspended from said frame and an inner circumferential edge (at 8c), said drive unit having a stationary part (1, 2, 3) secured to said frame and a translatable part (6, 7) secured to said inner circumferential edge of said membrane, wherein said membrane includes a membrane body and a fold extending between said inner circumferential edge and said outer circumferential edge of said membrane having a depth which increases from said edges towards an area situated between said inner circumferential edge and said outer circumferential edge, including a face (8a) at the bottom of said fold, wherein a suspension means (10) is provided which is secured to said frame and said face (See Fig. 1 and col. 3, line 57 to col. 4, line 67). Kato does not expressly disclose said membrane body includes a pattern of folds radially extending between said inner circumferential edge and said outer circumferential edge of said membrane. However, radially folded membranes are well known in the art and Maruno teaches a loudspeaker membrane including a membrane body (1) which, viewed in a circumferential direction, has a pattern of folds (1a-1d) radially extending between the inner circumferential edge and the outer



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circumferential edge of the membrane, which folds, viewed from the membrane body towards the driving unit in a direction substantially perpendicular to the membrane, have a depth which increases from said edges towards an area situated between the inner circumferential edge and the outer circumferential edge, in which area the folds are provided with faces (connection point at valley at 2), wherein a suspension means (3) is provided which is secured to said faces (See Figs. 1 and 2 and translation abstract. Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the axial fold of Kato with the radial folds of Maruno to obtain a flat sound pressure characteristic.

Regarding claim 2, the combination of Kato in view of Maruno further discloses said inner circumferential edge and said outer circumferential edge are substantially flat edges (See Kato Fig. 1b and Maruno Fig 1. Edges must be flat to secure to outer suspension and inner former).

Regarding claim 3, the combination of Kato in view of Maruno further discloses said inner circumferential edge and said outer circumferential edge of said membrane are situated in substantially coinciding planes or zones (See Kato Fig. 1b and Maruno Fig 1).

Regarding claim 4, the combination of Kato in view of Maruno further discloses said membrane body is a slightly concave body, said substantially flat inner circumferential edge and said substantially flat outer circumferential edge being situated in parallel planes (See Kato Fig. 1b and Maruno Fig 1).

Regarding claim 5, the combination of Kato in view of Maruno further discloses said suspension means is a spider.

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Regarding claim 6, the combination of Kato in view of Maruno further discloses said substantially flat inner circumferential edge of said membrane is secured to a coil support (6) of said translatable part of said driving unit (See Kato Fig. 1).

Regarding claim 7, the combination of Kato in view of Maruno further discloses said folds have a depth which, measured from said membrane body, smoothly decreases from said area situated between said inner circumferential edge and said outer circumferential edge towards said substantially flat outer circumferential edge of said membrane (See Maruno Fig. 1).

Regarding claim 8, the combination of Kato in view of Maruno further discloses said folds have a depth which, measured from said membrane body, smoothly decreases from said area situated between said inner circumferential edge and said outer circumferential edge towards said substantially flat inner circumferential edge of said membrane (See Maruno Fig. 1).

Regarding claim 9, the combination of Kato in view of Maruno further discloses said pattern of folds is a regular pattern, viewed in a circumferential direction and/or radial direction (See Maruno Fig. 1).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Ensey whose telephone number is 571-272-7496. The examiner can normally be reached on Monday - Friday 6:00 AM - 2:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Suhan Ni can be reached on 571-272-7505. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
P.O. Box 1450  
Alexandria, Va. 22313-1450

**Or faxed to:**

(571) 273-8300, for formal communications intended for entry and for informal or draft communications, please label "PROPOSED" or "DRAFT".  
Hand-delivered responses should be brought to:

Customer Service Window  
Randolph Building  
401 Dulany Street  
Arlington, VA 22314

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/Brian Ensey/  
Primary Examiner, Art Unit 2615  
September 23, 2008